

**Advisory Action
Before the Filing of an Appeal Brief**

Application No.

10/585,055

Applicant(s)

MYLLYMAKI ET AL.

Examiner

YUN QIAN

Art Unit

1793

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 22 February 2010 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☐ The period for reply expires _____ months from the mailing date of the final rejection.
b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☐ Applicant's reply has overcome the following rejection(s): _____.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☐ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: _____.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See continuation sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____.
13. ☒ Other: PTO-892 Note the References Cited is included.

/Melvin Curtis Mayes/
Supervisory Patent Examiner, Art Unit 1793

/YUN QIAN/
Examiner, Art Unit 1793

Continuation of Box 11. It does NOT place the application in condition for allowance because:

Regarding claims 1-3, 8-10, 12-15 and 17 provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-6, 12, 14 and 19 of copending Application No.10/568,458, the applicants should raise the arguments after receiving the office action mailed on June 24, 2009. However the examiner would like to take this opportunity to address the Applicant's arguments.

Applicants argument that the co-pending application does not teach or suggest depolymerization of starch and the Office action mailed on June 24, 2009 stated, "It would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the method for treatment of lignocellulosic material of copending Application 10/568,458 to treat a simpler molecular of polysaccharide (starch)" is unsupported and conclusory statement cannot substitute for establishing that all limitations of the claims are taught or suggested by the prior art. Accordingly, a prima facie case of obviousness has not been established (Remarks, pages 6-7).

The Examiner respectfully submits that it is well known that lignocellulosic material (containing cellulose, hemicellulose, and lignin) are a lot stronger than starch, for example lignocellulosic material does not dissolve in water the way starch will, and does not break down as easily. Since the process of Swatloski et al. dissolve a cellulose material, one would have a reasonable expectation of success for dissolving a less crystalline starch material.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the known depolymerization methods to high molecular weight carbohydrates, including the various types of starch and cellulose, as evidences by IG FARBENINDUSTRIE AG (GB290377A) (abstract and claims 1-4).

The prima facie obviousness of combination of the teachings of co-pending application and well known in the industry (i.e. GB290377A) has been established as set forth in the Office action mailed on June 24, 2009.

Regarding claims 1, 2, 9-145 and 17, applicants argue that Swatloski et al. does not teach or suggest the depolymerization of starch, and raise a question about whether depolymerization can occur. The Office appears to be arguing-without support from any reference-that it would have been obvious to substitute starch for Swatloski's cellulose (Remarks, pages 7-10).

The Examiner respectfully disagrees. As discussed above and set forth in the Office action mailed on January 12, 2010, the cellulose poses more challenges to hydrolyze due to its higher crystalline and lower solubility in solution. Since the composition of Swatloski can dissolve cellulose, it would expect one skilled in the art at the time the invention was made to substitute starch for Swatloski's cellulose.

IG FARBENINDUSTRIE AG (GB290377A) discloses process for the manufacture of depolymerization of high molecular weight carbohydrates, comprising steps of dissolving starch in glycol, and celluloses (cotton, paper pulp) in ethylene glycol or monochlorhydrine or mixtures thereof. Only 85% of cellulose used is dissolved (Examples 1 and 8, claim 1).

The cellulose poses more challenges to hydrolyze due to its higher crystalline and lower solubility in solution. Since the composition of Swatloski can dissolve cellulose, it would expect one skilled in the art at the time the invention was made to substitute starch for Swatloski's cellulose.

Swatloski et al. teaches the same process (dissolving polysaccharides, agitation, heating under microwave irradiation) and the same reagent (ionic liquid) as the instant claims, the regenerated products from starch would expect to be the same as applicant's depolymerized material.

The prima facie obviousness of combination of the teachings of co-pending application and well known in the industry (i.e. GB290377A) has been established as set forth in the Office action mailed on June 24, 2009.

Therefor, the rejection stands.

As such, the rejection of claims 3-8 and 15-16 as set forth in the office action mailed January 12, 2010, is proper and stands.